

MINISTRY FOR DEFENCE

Paris, 06/11/04
N° 126/HIA PERCY/BIOCH

**Service
de Santé
des Armées**

HOPITAL D'INSTRUCTION DES ARMES PERCY
FEDERATION OF LABORATORIES
DEPARTMENT OF BIOCHEMISTRY, TOXICOLOGY AND CLINICAL PHARMACOLOGY

Chief Pharmacist Philippe VEST
Head of Department of the Biochemistry Laboratory
HIA PERCY

to

Head Doctor of the PATS Services
Head of the Intensive Care/Anaesthesia Department
HIA PERCY

Case managed by: Subject: toxicological analyses conducted by biochemistry for the patient LE
CP VEST

Attachment: Table of analyses conducted (2 pages)

I am delighted to send you the list of toxicological analyses conducted within the biochemistry department of the HIA Percy for the benefit of the patient LOUVET ETIENNE (table appended).

Chief Chemist Pharmacist P VEST
Biochemistry Specialist
Head of the Biochemistry Department
Hôpital d'Instruction des Armées Percy

HIA PERCY
Biochemistry Department

TOXICOLOGICAL TESTS
CONDUCTED AT THE BIOCHEMISTRY LABORATORY OF THE HIA PERCY

Date: 29/10/04
Record no: 488059732

technique	analyser	medium	molecule(s) sought	result
FPIA	Integra 700, Roche diag	plasma	Barbiturates: measurement of phenobarbital	Negative
FPIA	Integra 700, Roche diag	plasma	Benzodiazepines: alprazolam; 7-amino-desmethyflunitrazepam; 7-aminoflunitrazepam; 7-amino-nitrazepam; bromazepam; chlorazepate; clonazepam; desalkylflurazepam; desmethyflunitrazepam; diazepam; didesethylflurazepam; flunitrazepam; flurazepam; 4-hydroxyalprazolam; hydroxyethylflurazepam; 4-hydroxytriazolam; medazepam; n-methyloxazepam; midazolam; nitrazepam; oxazepam; pinazepam; prazepam; temazepam; tetrazepam; triazolam	Negative
FPIA	TDX Abbott	plasma	Tricyclic antidepressants: amitriptyline; clomipramine; cis-hydroxy-10-amitryptinine; cis-hydroxy-10-nortriptyline; desipramine; doxepine; hydroxy-2-desipramine; hydroxy-2-imipramine; nordoxepine; nortriptyline; n-oxide-imipramine; protriptyline; trimipramine;	Negative
Enzymology	Integra 700, Roche diag	plasma	Salicylates (measurement of salicylates)	Negative
Enzymology	Integra 700, Roche diag	plasma	Paracetamol (acetaminophen)	Negative

TOXICOLOGICAL TESTS
CONDUCTED AT THE BIOCHEMISTRY LABORATORY OF THE HIA PERCY

Date: 30/10/04
Record no: 488059733

technique	analyser	medium	molecule(s) sought	result
nuno chromatography	Multiscreen 10 – BMD	urine	Barbiturates: secobarbital; amobarbital; alphenol; aprobarbital; butabarbital; buthethal; butalbital; cyclopentobarbital; pentobarbital; phenobarbital	Negative
			Benzodiazepines: oxazepam; alprazolam; alpha-hydroxyalprazolam; bromazepam; chlordiazepoxide; clonazepam; clobazam; clorazepate; delorazepam; desalkylflurazepam; diazepam; estazolam; flunitrazepam; D,L-lorazepam, R,S-Lorazepam glucuronide; midazolam; nitrazepam; norchlordiazepoxide; nordiazepam; temazepam; triazolam	Negative
			Tricyclic antidepressants: nortriptyline; nordoxepine; trimipramine; amitriptyline; promazine; desipramine; imipramine; clomipramine; doxepine; maprotiline; promethazine	Negative
			Cannabis: 11-nor-delta9-THC-9-COOH; cannabinol; 11-nor-delta8-THC-9-COO; Delta8-THC; delta9-THC	Negative
			Opiates: morphine; codeine; ethylmorphine; hydrocodone; hydronorphone; levophanol; 6-monoacetylmorphine; morphine 3-beta-D-glucuronide; norcodeine; oxycodone; oxymorphone; procaine; thebaine	Negative
			Cocaine: benzoylecgonine; HCl cocaine; cocaethylene; HCl ecgonine	Negative
			Amphetamine: D-amphetamine; D,L amphetamine sulphate; L-amphetamine; D,L-3,4-Methylenedioxymphetamine	Negative
			Methamphetamine: D-methamphetamine; p-hydroxymethamphetamine; Mephentermine; D,L-,4-MDMA	Negative
			Methylene dioxymethamphetamine: 3,4-MDMA HCl; 3,4-MDA HCl; 3,4-MDEA	Negative
			Methadone: methadone; doxylamine	Negative

REPORT OF ANALYSES

TESTING AND IDENTIFICATION OF DRUG AND/OR NARCOTIC SUBSTANCES TESTING AND MEASUREMENT OF METALS

**4830/EA/TOX/432/04 and 4710/EA/TOX/427/04
of 5 November 2004**

Reference: Request for analyses dated 1st and 4th November 2004 from Chief Pharmacist VEST, Head of the Biochemistry and Toxicology Department of the HIA PERCY (CLAMART 92).

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MISSION

We, the undersigned parties,

Lieutenant-Colonel Patrick TOURON, holder of a postgraduate degree in chemical criminalistics, head of the Physics and Chemistry criminalistics division of the Institut de Recherche Criminelle de la gendarmerie nationale in ROSNY-SOUS-BOIS (93),

Captain Olivier ROUSSEL, doctor of pharmacy, deputy manager of the Toxicology Department of the Institut de Recherche Criminelle de la gendarmerie nationale in ROSNY-SOUS-BOIS (93),

appointed to undertake analyses of blood, urine, CSF and stools requested on 1st and 4th November 2004 by the Head Pharmacist Philippe VEST, Head of the Biochemistry and Toxicology Department of the HIA PERCY of CLAMART (92), in order to test for and identify drug or narcotic substances and metals in the blood, the urine, the CSF and the stools.

Taken into account

On 2 and 5 November 2004, in compliance with the terms of the mission, the following samples:

Samples of 1st November:

P1 blood: 0018059732

P2 urine: 0208059733

Samples of 4 November:

N° P1 to P6 (blood of Mr LOUVET), T1 to T4 (control blood), and CSF n° 8061062 in two tubes and stools n° 163251 and 8059824.

ANALYSES CONDUCTED

Analytical techniques implemented (IRCGN quality plan):

Screening for organic products via HPLC/DAD (ME 184), GPC/SM (ME 246).

Testing and measurement of metals by ICP/MS (ME 1).

Samples analysed

- Blood object of the samples (xenobiotics and metals);
- Urine (xenobiotics and metals);
- Cerebrospinal fluid (metals);
- Stools of the sample (metals);
- Nitric acid solution necessary for mineralisation;
- Two nitric acid solutions having briefly stayed in VACUTAINER vacuum test tubes containing (blank sample) lithium heparinate (comparable to those used for the samples).

RESULTS

To fulfil the mission, we used analysis techniques which enabled us to search:

- the following commercial databanks in GC-MS: WILEY 7N (392,000 spectra of various products), NIST 98 (129,000 spectra of various products), PMW_TOX3 (6,300 spectra of toxic narcotic and drug products) and the databanks developed by the IRCGN (790 spectra linked to analytical toxicology);
- the following commercial databanks in HPLC-DAD: HP database (1,358 spectra of drugs, narcotics and pesticides) and the databanks developed by the IRCGN (720 spectra linked to analytical toxicology).

Results for **Xenobiotics**:

Blood and urine: Presence of Ciprofloxacin (or similar), Propranolol, Metoclopramide, Lidocaine (and its metabolites) and Amantadine.

These molecules correspond to the patient's treatment (after telephone contact with the requesting department).

Results for **Metals**:

Blood, urine, CSF and stools:

The following elements could not be exploited owing to the nature of the packaging: Lithium (Li), Barium (Ba) and Aluminium (Al).

For the other elements tested (Be, B, Na, Mg, K, Ca, Ti, V, Cr, Fe, Mn, Co, Ni, Cu, Zn, Ga, As, Se, Sr, Y, Mo, Rh, Ag, Cd, Sn, Sb, In, Cs, Tb, Hg, Tl, Pb, Bi, U): no significant difference between the control samples provided and the samples of Mr LOUVET.

CONCLUSION

The xenobiotic tests conducted on the blood and urine samples of Mr LOUVET highlighted what seems to be his treatment.

The testing and measurement of metals did not highlight any overdose. These results are valid for the elements tested and exploitable.

ROSNY-SOUS-BOIS, 5 November 2004
Patrick TOURON and Olivier ROUSSEL

[signatures]

TO:

[] – Head Pharmacist Philippe VEST, Head of the Biochemistry and Toxicology Department of the HIA PERCY in CLAMART (92) (original + 2 copies)

[] – IRCGN archives

MINISTRY FOR DEFENCE
SERVICE DE PROTECTION RADIOLOGIQUE
DES ARMEES
LABORATOIRE DE CONTROL
RADIOTOXICOLOGIQUE
BP N° 129
00481 ARMEES
TEL: 01 41 46 71 10
FAX: 01 46 38 17 52

Date of the request: 08/11/2004
LCR n° 04-1324/2004
04-1325/2004

SURNAME: LOUVET

FORENAMES: ETIENNE

BORN ON: 13/05/1932

IN:

DEPARTMENT: HIA PERCY INTENSIVE CARE DEPARTMENT

JOB CODE:

SAMPLE

Nature of the sample:

X – URINE

Sample over three days

Comments: The total volume analysed was 7880 ml

EMITTERS

GAMMA

⁶⁰ Cobalt:	NS	Bq
⁵¹ Chromium:	NS	Bq
¹³⁴ Cesium:	NS	Bq
¹³⁷ Cesium:	NS	Bq
⁵⁴ Manganese:	NS	Bq
¹⁰⁶ Rhodium:	NS	Bq
¹⁴⁴ Cerium:	NS	Bq
⁶⁵ Zinc:	NS	Bq

In the context of a common analysis (24 hour diuresis), the term NS means that the analyses were conducted up to the limits of detection at least less than 1/100th of the guide values used for this type of sample.

In this case, as the analysis was undertaken over a sample of three days, the sensitivity was increased by a factor of at least 3 in relation to a common analysis.

CONCLUSION

EXAMINATION NORMAL

10/11/04

Assistant Pharmacist A CAZOULAT
Head of the Radiotoxicological Control Laboratory
[signature]

Chief Pharmacist P GERASIMO
Head of the Technical Division
[signature]